PowerSource®

A Corporate Publication of Santee Cooper

SPRING 2003

Quoizel—*the Story of an Illuminating Industry*

Relicensing the Hydro Project | Extending a Helping Hand to Education | "Little David" Torpedo Boat

Maintaining a License to Serve... in the Best Public Interest

By definition, a license is a formal permission or authorization by law to do some specified thing. In our society, both individuals and institutions are licensed to perform specific tasks or provide specific services in a manner that serves the best interest of individuals, particular groups, organizations or the public at large. Such is the case with utilities owning hydroelectric facilities in the Palmetto State and throughout the country.

In 1926, a license was issued to the Columbia Railway and Navigation Co. by the Federal Power Commission to construct and operate a hydroelectric and navigation project that would, among other things, provide a power generating facility and an inland channel for shipping. Those were the first seeds of what eventually became the Santee Cooper Hydroelectric and Navigation Project, known today as Santee Cooper.

After the Columbia Railway and Navigation Co. "crashed" as one of the numerous victims of the Great Depression, the license was regimented in 1934 by the General Assembly, which passed legislation that did two things.

First, it created the South Carolina Public Service Authority to construct the project using federal funds provided through President Franklin D. Roosevelt's "New Deal" economic recovery program.

Secondly, the enabling legislation provided a commitment for Santee Cooper to provide services and operate "for the benefit of all the people of the state and for the improvement of their health and welfare and material prosperity."

Just like renewing a license for driving, flying or conducting any other activity that is formally permitted or authorized by law, the license for continued operation of Santee Cooper's hydroelectric facilities has to be renewed periodically.

John H. Tiencken Jr.
President and Chief Executive Officer

This issue of *PowerSource* addresses the renewal process through which Santee Cooper presents its application to the Federal Energy Regulatory Commission, successor to the Federal Power Commission. Our goal is to maintain an equitable balance of multiple uses of the Santee Cooper Project and to continue operating in the best public interest. That was the mandate inherent to our original license and is the same mandate which defines our continued service to customers, communities and the people of South Carolina.

Santee Cooper POWER

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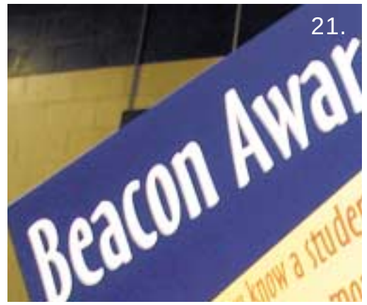
email: jlstaffo@santeecooper.com

Ben Cole—Senior Vice President, Community Development and Corporate Communications
Jerry Stafford—Editor
Willard Strong—Senior Writer/Media Relations Specialist
Jim Huff—Writer/Photo Editor/Photographer
Beth Fondren—Director of Public Relations
Phil Fail—Advertising Director/Director of Creative and Technical Services
Carolyn Pilgrim and Stephanie Drago—Proofreaders
Marc Cardwell, CNSG—Design



5. Santee Cooper's Relicensing Seeks to Maintain Balance in Meeting Public Needs
By Willard Strong, Photography by Jim Huff

21. High Performance Partnerships Extend a Helping Hand to Education
By Diane Vascovich, Education Assistant
Photography by Jim Huff

13. Quoizel Lights the Way for Success in Goose Creek
By Willard Strong, Photography by Jim Huff

27. The Little David
By Willard Strong, Photography by Jim Huff
Conrad Wise Chapman painting from the Museum of the Confederacy. Historic photos from the Naval Historical Center.

34. NewSource
Revised Web Site Offers Quick Access to Santee Cooper Information and Services

35. Lest We Forget...
A Postcard from the Past
Photo from Santee Cooper Archives

***Cover**: An exquisite handcrafted lamp manufactured by Quoizel Inc. in Goose Creek. Each of the Tiffany reproductions is made by skilled craftsmen who utilize a special technique pioneered by Louis Comfort Tiffany, whose turn-of-the-century pieces are now treasured collectors items.*

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Santee Cooper's Relicensing Seeks to Maintain Balance In Meeting Public Needs

Santee Cooper is periodically required by the Federal Energy Regulatory Commission to "relicense" its hydroelectric and navigation project, which began operating on Feb. 17, 1942. Although the current license doesn't expire until 2006, this major undertaking requires a licensee to begin planning years earlier. Santee Cooper submitted a draft application to FERC in April.

FERC relicensing is a complex subject. In this interview with John Dulude, who is heading up the relicensing effort at Santee Cooper, we learn what all this means to ratepayers, the public and Santee Cooper, which for the past 61 years has been the steward of South Carolina's largest freshwater resource.

Q: Why is Santee Cooper required to have a federal license to operate its hydroelectric and navigation system?

A: The federal government has jurisdiction over all nonfederal dams and hydro projects, even if they're owned by the state, which is Santee Cooper's situation. We have to have a federal license to legally operate our project.

Q: Has it always been that way?

A: It's been that way since 1920, when the Federal Power Act was implemented and the Federal Power Commission was created. The commission evolved into the Federal Energy Regulatory Commission (FERC) of today.

Q: How often does Santee Cooper have to be relicensed?

A: Santee Cooper obtained a 50-year license that was originally issued in 1926 to the Columbia Railway and Navigation Co. This private venture intended to build a Santee Cooper project, but the Depression came along and plans were dropped. The license was renewed in 1976 for 30 years and is the current license under which we operate. It expires in 2006. The license we're applying for we hope to extend for 40 to 50 years.

***Left**: Lakes Moultrie and Marion — South Carolina's largest freshwater resource. Based on surface area, it is the largest manmade impoundment in the United States.*

***Above**: Principal Engineer John Dulude*

Q: What does the relicensing process entail for Santee Cooper?
A: It's referred to generically as relicensing, but the fact of the matter is, we actually have to evaluate the project as though it didn't exist and determine from the aspect of public interest and public good if it is again justifiable. Basically, we're applying for a new license.

Q: What approach are we taking?
A. The traditional approach, which has a seven-step process you work through and you have a series of established points at which you have public consultation. The other approach is the alternative licensing process, which is a more recent option. You collaborate up front with the various stakeholders, and the licensee actually performs their own environmental impact statement. We've approached it from a traditional point of view but enhanced it to include those good things that come out of the alternative process, a collaborative approach. We collaborate directly with the stakeholders, we coordinate with them according to their needs and interests but we like the traditional approach in that it's structured in terms of time requirements and basically keeps you on a schedule.

Q: Who are the stakeholders?
A: Obviously it's us (Santee Cooper), the licensee, and FERC. Then you have federal, state and local governmental agencies, resource agencies such as the South Carolina Department of Natural Resources, U.S. Fish and Wildlife Service, National Marine Fisheries Service, DHEC and the Office of Ocean and Coastal Resource Management. There are also non-governmental organizations, or NGOs, that have specific interests associated with these types of projects. Examples are American Rivers, South Carolina Coastal Conservation League, Sierra Club, Ducks Unlimited, South Carolina Waterfowl Association, Committee for the Preservation of Lakes Moultrie and Marion, the Santee Cooper Waterfowlers Association and, of course, the public. Individuals can participate either through one of those organizations or by submittal to FERC based on their interest in particular aspects of the Santee Cooper project.

Q: What are Santee Cooper's objectives in working with all these stakeholders?
A: Part of the challenge of a relicensing process is pulling together all stakeholders who have specific objectives in mind and don't necessarily have all the multiple uses of the project as a priority. From the perspective of FERC, we have to have all the objectives of the project in mind because it's FERC's requirement and our task to provide them with balancing the project, whether it's hydro generation, recreation, environmental issues, river flow issues or endangered species such as birds of prey. We have shortnose sturgeon in the water and bald eagles in the air. We have all of those issues that have to be balanced in the context of the project.

A DNR marine biologist releases a shortnose sturgeon that he has tagged and inserted with a transmitter. The device will allow the endangered species to be tracked as it makes its spawning migration through the Santee Cooper Lakes and upstream.

Santee Cooper is doing all that with the interest of its ratepayers and the state of South Carolina.

Q: Santee Cooper first began generating hydropower 61 years ago. With all that history, doesn't it seem hard to approach relicensing from a clean sheet of paper with such a long track record in place?
A: That has led us to one simple objective: to balance the multiple uses of the project. We've done a pretty good job. Just from a recreational standpoint, the most recent data from the S.C. Department of Parks, Recreation and Tourism indicates the annual economic impact of the lakes is $300 million. That doesn't include the benefits to our ratepayers, including customers of all the state's electric co-ops and all the industries that benefit from hydropower's low-cost energy. There is a balancing act we do on a daily basis, and we've been doing it for 61 years. Anyone who's looked at this operation would have to agree we've done a very good job.

Q: This is the home of the world's first landlocked striped bass fishery, one of the greatest fish stories of all time. But we don't manage the lakes, for example, just for people to catch striped bass, correct?
A: That's right. That particular species, a seagoing fish that spawns in freshwater, got caught in the lakes after the dams were built. To the amazement of biologists, they reproduced in lakes Marion and Moultrie and in suitable habitat, now reproduce worldwide. What's interesting is that typically you hear the complaint that dams create problems for anadromous species, or fish that move upstream to spawn and go back to the ocean. There's no challenging the fact that an obstacle such as a dam makes it more difficult for some fish to spawn. But it's documented that we've had a very successful impact on striped bass. We have also provided sufficient passage for other types of anadromous fish to pass upstream. This includes American shad and blueback herring, which are important forage fish for not only striped bass but a lot of other species as well. They pass through our project on an

Jefferies Hydroelectric Station and Pinopolis Navigation Lock.

annual basis at the Pinopolis Lock at the Jefferies Hydro Station on Lake Moultrie. We coordinate that closely with SCDNR.

Q: Let's talk about the federal Cooper River Rediversion Project, completed in 1985. It's not part of the license, but how can you separate it from how the lakes work?
A: It's going to be interesting how FERC fits it all together. From Santee Cooper's perspective it's relatively clear. The U.S. Army Corps of Engineers built the Rediversion Project as the agent for the federal government for the purpose of "rediverting" water from Lake Moultrie into the Santee River. Originally, the water flowed down the Santee River. The Cooper River was basically a tidal estuary or a short tidal river. What occurred when we originally built the project is that Santee Cooper impounded the upper lake (Lake Marion) and diverted that flow from the Santee River into the Cooper River through the Pinopolis Dam. That's called an interbasin transfer. The federal government ascertained by their investigation that this change in flow contributed to a substantial increase in dredging requirements and costs in Charleston Harbor. To offset that cost, the federal government wanted to limit that flow. But to achieve that, they would have to mitigate the loss in energy and capacity that would be incurred by the ratepayers. The federal government designed, funded and constructed the Rediversion Project. It includes a three-unit 84-megawatt hydroelectric station on the 8-mile long Rediversion Canal.

Santee Cooper receives the energy from this hydro station. The project is mandated by federal law and is operated by contract between the U.S. Army Corps of Engineers and Santee Cooper. The project does not reside within the Santee Cooper project boundary as established by FERC because FERC has no jurisdiction over the Rediversion Project or other federally owned hydro projects. It's owned by the Corps and maintained by them. In compliance with the contract, Santee Cooper does control the energy flow remotely from our Energy Control Center in Moncks Corner. So by contract, Rediversion has become an integral part of our operations in that we are mandated to operate the Jefferies Hydro Station at a weekly average flow not to exceed 4,500-cubic feet of water per second or a daily average of not more than 10,000 cfs. There are many other constraints. We are then mandated by the contract to pass that water to the Rediversion Project, which returns water to the Santee River from Lake Moultrie via the Rediversion Canal. What this does is reduce the amount of flexibility in changing the flow regime that may be considered in a normal relicensing process.

Q: Does the Rediversion Project complicate relicensing?
A: It does make the process of understanding it more complicated for stakeholders who don't have a day-to-day understanding of how all of this has to fit together. It will be difficult for FERC to balance all these needs recognizing all of these restrictions. That is something that we will work through with FERC when we pass all our information to them. They will have a full plate of information on how this contract works and will use

The Santee Cooper Regional Water System meets the needs of four Lowcountry water utilities, which serve more than 102,000 consumers.

it to help balance the needs of the project. It would literally take an act of Congress that would apply to the Corps and to us, to change the dynamic of the Rediversion Project.

Q: You mentioned the spring fish passage at the Pinopolis Lock. There is also fish passage on the Rediversion Canal, at the St. Stephen Powerhouse that allows fish migrating up the Santee River to reach lakes Moultrie and Marion. How does this unique fish lift fit into the overall scheme of things?
A: When the powerhouse at St. Stephen was originally designed, there was no plan for fish passage. But everybody recognized that the anadromous fish that were coming up the Cooper River caused by the change in flow from the Santee to the Cooper River would then shift back to the Santee River when the Rediversion Project was completed. That's proven to be the case. We have less fish passage on the Cooper because of the lower flow, but now we have fish passage on the Santee. Prior to the construction of the Rediversion Project, when that project was under review, state and federal agencies including the Corps, recognized a fish lift should be built and operated by SCDNR. It provides two separate locations for fish passage off two separate river systems. It has got to be one of the few projects in the country with two fish passage facilities on it before it's been relicensed. This is unique and this is good. It improves and enhances the opportunities of fish that spawn upstream.

Q: Santee Cooper will spend up to $2 million on fish studies during the relicensing process. Why?
A: What we're looking at is how effectively fish passage is working. What's occurring downstream and upstream? With Rediversion under the obligation of the government, there is a clear understanding that fish passage would be evaluated "post-project." And then, if modifications are needed to be made to direct into that fish passage or do a better job of making that Rediversion more efficient for passing fish, the Corps is obligated to do that. With the fish studies we're doing, we're not only evaluating the fish behavior but fish habitat. Such things as flow impact fish habitat in a particular river system, when those flows occur, when the fish want to actually move upstream or downstream. We know in the case of striped bass, shad or herring that the fish passage facilities we have now pass those fish relatively well. In terms of the effectiveness of the lock to pass fish, we're doing those studies to determine how effective it is and what we can do to enhance that effectiveness. In terms of habitat, we're evaluating various flow conditions and how that impacts the downstream floodplain.

Fishing and recreation are major objectives addressed in relicensing the hydroelectric project.

Q: How many studies will be done?
A: Essentially, 16 studies. Some of these studies are not fish-related per se, but most are. Some deal with other issues such as shoreline management, which is an important issue. Most are fish related and related to spawning. They're being done primarily by consultants for Santee Cooper.

Q: What role can the individual citizen play in this process?
A: They can be aware of the project. There's a lot of misunderstanding about why things are done the way they are. For example, people think we drop the lakes in the wintertime so people can repair docks and ramps. That's coincidental and has no relationship to why lake levels drop in the winter.

Q: Why do they typically drop in the winter?
A: It's done in anticipation of the normally higher inflows into the lakes you usually see in January, February and March, to make a "pocket" for the water. We've gotten those rains and ensuing inflows this winter. During the drought, we did not see those higher inflows.

Q: Will Santee Cooper propose any significant changes in the way we operate the lake system?
A: No, we won't. For the most part, it is anticipated that such an approach will be well-received by most of the stakeholders. Santee Cooper is in the business of operating the Santee Cooper project for the benefit of ratepayers and the state of South Carolina. We're not in the business of making a profit, and we're not in the business of land development. Our project lands are about 25 percent developed and 75 percent undeveloped. That means there is development around our lake system, but the majority of our shoreline and the majority of the property within the project boundary is undeveloped. We see that as a good thing, and we want to keep it that way. We think there is room for development, but on our lake system we see a lot of the natural area and forest management area staying the same. We want to retain that character of our project, and we don't see any significant development nor are we proposing any significant development. From an operational standpoint, we do want to do things that enhance fish passage, but we can't operate for the purpose of fish passage. Within the lake system, we're already trying to improve the native vegetation, while limiting the "regrowth" of more noxious weeds than we've had in the past. We're coordinating that with SCDNR now, which should help waterfowling. We are also involved in developing a green tree reservoir on Lake Marion to enhance waterfowl habitat. We see all those things as an enhancement, but the overall project's basic operation will remain the same. What may get lost is the fact that the Santee Cooper project was built to generate hydro power, even though it is currently only 2.9 percent of our overall generation capacity.

Q: Why is hydro power so important?
A: Because it is a renewable resource. The fuel we use is water. We don't change the water. We don't convert it into anything else. It doesn't change in any of its chemical or physical makeup. From an environmental perspective, hydro generation offsets other forms of generation. The benefit of hydro power to our ratepayers is that the fuel costs are provided by the inflows we get into the impoundments. Let's take a look at the drought. It cost us. Over the last year and a half, the cost to our ratepayers because of the lack of water to generate was over $16 million in replacement power costs. We were sensitive and we're always sensitive to the impact this drought had on lakeside residents, lake users, anglers, waterfowl enthusiasts, boaters, kayakers and anyone else who enjoyed the lake. Lake levels are all based on inflows, and now that we've gotten normal inflows, the lakes have come up.

Q: Are the 9-year-old Santee Cooper Regional Water System operating on Lake Moultrie and the proposed Lake Marion Regional Water System part of relicensing?
A: They are certainly part of the multiple uses of the lakes. Our lakes were about 4 feet below normal at one time during the recent drought. I want to emphasize the current water system has no significant impact on lake levels by using the following illustration. The Santee Cooper Regional Water System utilizes about 1 inch of our lake system over a year's time. If we stored that 4 feet of water that was lost during the drought, we could run the present water system for the next 50 years. We have a tremendous water source here. It's better than well water, better than reverse osmosis. Our project is the largest manmade impoundment in the United States by surface area, so it's a very large project. The amount taken for drinking water is only one-fifth of 1 percent of what comes into the system on an average day. Plus, it has fostered regional cooperation in the Lowcountry, and it is doing the same thing in the Midlands. We're partnering with the Lake Marion Regional Water Agency and the Corps on the Lake Marion system. Santee Cooper will own and operate it. We have a great future in the wholesale water business and another opportunity to provide added value to our state.

The Santee Spillway, part of the Santee Dam, provides flood control for the water flowing into the lakes from the 15,000 square mile watershed.

Q: How long is the relicensing process going to take?
A: We've been in the relicensing process for the past three years, and we still have another three years to go before we anticipate receiving a new license. So we're spending at least six years in the process. You can actually relicense a nuclear plant in about two to three years. A hydro project, on the average, takes anywhere from six to 10 years.

At the end of the day when we have a new license, we hope the license will be similar to the way we're operating now. We'll have data that will help us better understand our project and be more aware of the other issues out there. In terms of overall operation, we hope to continue to provide the same hydro capacity and energy to our ratepayers—and also to provide the recreation and environmental enhancements that our project already provides.

For a project the magnitude and impact of ours, if you make significant changes then all of the objectives of the project such as recreation and fishing will also be impacted. We may not always agree with some stakeholders throughout this process. So at times we may agree to disagree. We often find we have a lot more in common with each other than differences. Unfortunately, in these long drawn-out relicensing efforts, folks may come to the table anticipating an adversarial relationship. That's not Santee Cooper's approach, that's not our management's approach and that's not the approach we're taking in relicensing.

Quoizel Lights the Way for Success in Goose Creek

Ira Phillips, chairman of the board of Quoizel, can sum up his decision to relocate his decorative lighting business from Long Island, N.Y. to Goose Creek in nine words: “We just wanted to live in the Charleston area.”

The Empire State’s loss has definitely been the Palmetto State’s gain. By just about every measurable business standard, the move has been a tremendous success. But just looking at the balance sheet simply can’t begin to convey the kind of enterprise Quoizel is.

For starters, it’s a family business employing approximately 275 workers in the Crowfield Commerce Park. The elder Phillips, who’s chairman of the board, is complemented by his son Todd Phillips, who’s president, and his sister, Toni Phillips, who’s the firm’s executive vice president.

***Left**: This colorful peacock chandelier reveals attractive mottling and translucency that is a trademark of the Tiffany-styled lighting fixtures manufactured by Quoizel Inc.*
***Above**: Ira and Todd Phillips in the showroom of Quoizel’s 500,000 square-foot manufacturing plant and distribution center in Goose Creek.*

Designer Nancy Rhodes develops lighting fixtures that are part of the constantly changing home fashion industry. She is from of Pennsylvania.

Ira Phillips is a gregarious, outgoing man who obviously loves his work, his family and, just as importantly, the people who work for him. His employees exude a loyalty that can't be bought. It's earned, and the Phillips family has earned it.

"Sales is my thing," the elder Phillips said. "I like people."

The 75-year-old Phillips joined Quoizel in 1964, a time when the New York firm "was about to go out of business." Revenue was a paltry $250,000 a year. He came on board for $150 a week to do sales and merchandising.

Phillips said, "I told them that I would double their sales if they made me a director." Within one year, revenue surpassed $500,000, and by 1985, he had bought out the other owners. The Quoizel of today was born.

Things were going very well for the business. Expanding, introducing new product lines and an envious bottom line became a given. But storm clouds had gathered on the horizon. Quoizel needed to expand, but there was nowhere affordable to go.

"Land nearby was about $250,000 an acre," said Todd Phillips. "We needed the space. And disappointing to us, the officials in New York really didn't do anything to try to keep us there. We weren't looking for a handout. We were looking for a hand. We didn't have union problems. We got along great with the union. Eventually I told dad, 'Move down South.' We were just a number in New York."

Cynthia Bryant of Moncks Corner dabs patterns onto the surface of a lamp fixture base.

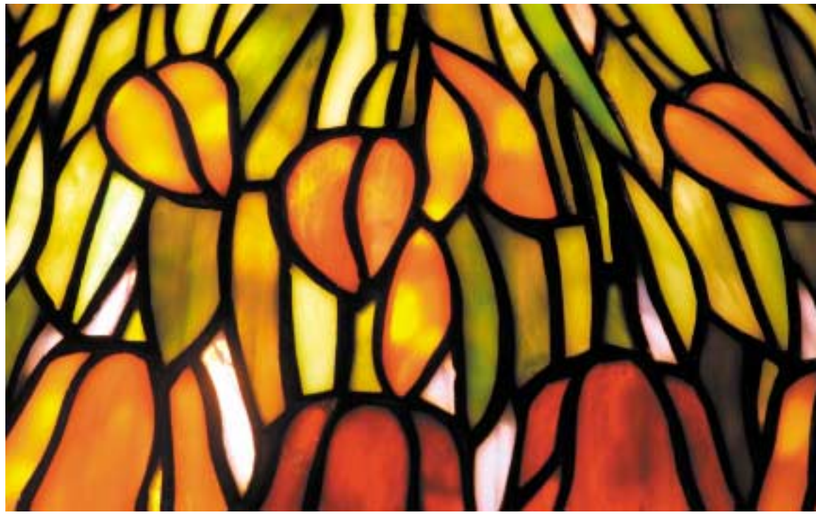
"I said, 'Sounds interesting,'" Ira Phillips recalled. "I'd actually been to Charleston. In 1946, I was discharged from the Navy in Charleston." The Phillips clan looked hard at Savannah, and the Georgia economic development effort was dazzling to the New Yorkers.

"It was really something," Todd Phillips said. "I mean, they rolled out the red carpet. They flew us down to Savannah. They took us to the Masters. We traveled one time with a police escort. It really opened our eyes."

During this time, Todd called the Charleston Regional Development Alliance, and together they zeroed in on the Crowfield Commerce Park. It was a perfect fit, and Todd came to the unmistakable conclusion many other "Frost Belt" to Sun Belt" business executives come to. And it's the same thing he told his employees when persuading them to follow the company—which, almost to a person, they did.

"We can come here and live for less," he said. "We brought everyone down to South Carolina who wanted to go—from the most entry-level job to the managers, 126 families in all. Very few have gone back. I'm proud of that. We love it here. It's that 'quality of life' thing you hear and read about."

Petronila Portes, a native of the Dominican Republic, tapes a group of lighting fixtures for shipment to a retailer.



A close look at one of the "Quoizel Collectibles" reveals how each piece of glass is selected for its color, translucency and shape.

One of the Quoizel family members did, in fact, stay in New York. Ira's daughter Toni is executive vice president and heads up about 30 crucial employees involved in customer service, order writing and advertising.

One important factor that also opened the Phillips' eyes was power costs. Quoizel's power provider is Berkeley Electric Cooperative, one of the 20 distribution cooperatives throughout the state that have Santee Cooper as their power source. A Santee Cooper transmission line runs near their property.

Power costs for Quoizel are only one-third of what they were on Long Island, which has among the highest electric rates in the land. Two dollars worth of power here costs $5 on Long Island. They're pleased with both the cost and reliability they've experienced with electricity. As business people, it's one less thing to worry about.

"This area is very business friendly," Ira Phillips said. "We're excited we have the ability to expand."

Quoizel has an office in China because that's where the majority of its product is made. It's the reality of the 21st century. In 1964, 99 percent of the Quoizel product line was American made. Now it's only about 10 percent.

"Our (lighting) industry no longer exists in the United States," Ira Phillips said. "We've done what we've had to do to survive, while still offering our employees good wages and benefits."

Edith Flores, a native of El Salvador, puts the final polishing touch on a colorful Tiffany lamp.

***Above**: Design Engineer Kenn Houry assures standards for high-quality design and function are met for every Quoizel fixture. He is from Ohio.*

***Right**: Gary Cabbage positions his transporter to retrieve orders for shipment from Quoizel's 500,000 square-foot distribution center. The Oak Ridge, Tennessee native moved to Goose Creek from California.*

Quoizel is best known for its exquisite line of interior and exterior lighting fixtures, mirrors and other home furnishings designed to meet the needs of both form and function. Most notable among Quoizel's high-end luminaries is the Tiffany line of lamps and lighting fixtures, which are featured in the company's "Quoizel Collectibles" series. Quoizel has captured the beauty and standards originated by Louis Comfort Tiffany, whose turn-of-the-century stained glass lamps and art pieces are now treasured items for collectors.

In production of the Tiffany lamps and fixtures, each piece of glass is individually selected for its color, translucency and how it relates to the design. Each fixture consists of 200 to 2,000 pieces hand-cut, hand-bound in copper and double-beaded inside and out to strengthen construction. The metallic elements are brought to a rich authentic bronze patina, and the shade is hand-waxed to create a protective surface and lustrous finish. To maintain the high Tiffany standards, quality control is intense at every step of the process.

"Quoizel Collectibles" are true objects of art and are almost identical reproductions of antiques that sell from $50,000 to $500,000. "They are exquisite

investments of today and prized antiques of tomorrow, to be handed down generation after generation," according to promotional information published by the firm.

Quoizel products can be seen locally at Charleston Lighting, a firm in which Quoizel has majority ownership. A showroom is in Goose Creek, and more are planned for Mount Pleasant and Summerville. Decorative mirrors are a big item now.

One thing Quoizel won't do is rest on its laurels. It's continually stressing quality and has never changed its open-door policy with employees who unabashedly express their loyalty to the Phillips family, how they do things and how they're treated.

Quoizel—A Timeline

1930—Michael Chaikin begins making and selling table lamps at a shop on Manhattan's 25th Street. He calls it Quoizel, a name suggested by a friend interested in astrology. Quoizel is an astrological term that describes the conjunction of several planets.

1964—Quoizel's primary business remains early American hurricane lamps. Factory has four employees. Annual revenue is $250,000. Company hires Ira Phillips to direct sales and merchandising for $150 per week.

1966—Quoizel revenue reaches $500,000 as Phillips broadens product lines. Phillips becomes a partner in the business.

1974—Phillips acquires bigger stake in company and is named president and chief executive officer.

1975—Quoizel begins importing lighting lines from Europe, dramatically boosting its market share and revenue.

1978—Quoizel acquires 115,000-square-foot former aircraft engine plant in Hauppauge, N.Y. Toni Phillips joins Quoizel as director of internal sales and administration.

1980—Todd Phillips joins Quoizel as design director.

1986—Ira Phillips acquires 100 percent of the company by buying out Lon Chaikin, the son of Quoizel's founder. Sales reach $25 million.

1990—Quoizel buys 35,000-square-foot building for expansion two blocks from its Long Island headquarters. Company expands product line to include decorative mirrors and framed artwork. Toni and Todd Phillips named executive vice presidents.

1992—Sales reach $30 million while employment hits 200.

1994—Quoizel launches search in Southeast for relocation of headquarters and factory.

1995—Sales hit $50 million. Catalog includes more than 1,500 individual lighting and mirror styles. Company purchases 63 acres in Goose Creek and begins constructing a 35,000-square-foot facility.

1996—Quoizel relocates to South Carolina. Administrative, customer service and advertising operations remain in Hauppauge.

1998—Quoizel debuts its new furniture line.

1999—Construction completed on 200,000-square-foot expansion in Goose Creek. Employment hits 400. Revenue exceeds $80 million.

2000—Quoizel expands furniture line and launches Lenox Lighting by Quoizel, a unique collection in cooperation with Lenox China.

2002—Todd Phillips is named president of the company. Quoizel opens its newly expanded and renovated showroom in High Point, N.C.

High Performance Partnerships Extend a Helping Hand to Education

Have you ever seen a child's eyes light up when he or she picks out the first book they ever owned? Thanks to the High Performance Partnership at Loris Middle School, Principal Scott Mercer sees pride of ownership in the eyes of many of his students on a monthly basis. "I saw one student proudly clutching her new book as she rushed to her enrichment class where she proceeded to read it to her student council peer mentor. She read the book not just one time during the class but four times," Mercer recalled.

The First Book program, jointly sponsored by the Horry County School District and Santee Cooper, allows all 650 Loris Middle School students to choose a new book from primary to the young adult level every month for nine months. Through the High Performance Partnership program (HPP), Santee Cooper reaches out with a helping hand and an open heart to middle schools throughout its retail service areas.

The intent of HPP is to encourage students to stay in school, study hard and prepare for college. HPP is the business-school component of the federal GEAR UP

***Left**: Meter installer and HPP volunteer Kenneth Robinson awaits his cue to present a Beacon Award recognizing a Loris Middle School student for leadership and good citizenship.*

(Gaining Early Awareness and Readiness for Undergraduate Programs) Grant, administered through the South Carolina Chamber of Commerce to establish formal partnerships between businesses and high-need schools.

Edwina Carns, director, HPP, likes to point to Santee Cooper as a role model for the program. Santee Cooper has established three separate HPP relationships. One is with Macedonia Middle School and Jefferies Generating Station, one is with Berkeley Middle School and the Corporate Headquarters and one is with Loris Middle School in collaboration with Loris Health Care Systems and Santee Cooper's retail operations. "From lunch buddies to career awareness activities to student incentive programs, each of these partnerships has made a significant impact with the students at their respective schools," she said.

Trained HPP volunteers at each of the three schools also sponsor and present the nationally recognized

Santee Cooper officials signed an agreement with Macedonia Middle School in 2000, making the utility the state's leader in the number of high performance partnerships.

CHOICES program to all eighth-grade students, alerting them to the importance of making good decisions and continuing their educations. "This two-day educational seminar combines student role-playing, research from local job markets, time management and goal-setting into a thought-provoking yet fun-filled experience," said Barbara Allen, director, educational programs at Santee Cooper. Forty-two percent of eighth-grade parents responding to a survey conducted by Loris Middle School stated that their child shared information about the CHOICES program four months after the program was presented.

In addition, each HPP develops individual programs to meet the needs of its school. Macedonia Middle School Principal Janie Langely said, "One critical area that

Loris Middle School students select a book to read and keep from the collection provided by Santee Cooper and Horry County School District's First Book Program.

has received attention is teacher recognition. The High Performance Partnership has helped in ways too numerous to mention."

Santee Cooper Executive Vice President and Chief Operating Officer Bill McCall is a product of the Macedonia school system and appreciates the achievements and progress being realized there through the high performance partnership. "Business/Education partnerships are more than financial assistance. We share the intellectual capital of our employee's resources, many who were educated in Berkeley County and who are enthusiastic about returning to their communities to encourage academic achievement."

The Lunch Buddies program at Berkeley Middle School recognizes the need for positive role models and mentoring. Santee Cooper volunteers participate through monthly visits with their "lunch buddy." Engineering Associate Lisa Napier, lead contact at Berkeley Middle School, enjoys seeing her former lunch buddies, now seventh- and eighth-graders. "They still remember me

Community Relations Representative Yvette Jefferson facilitates group discussions in the interactive CHOICES Program.

and thank me for the time I spent with them during their sixth grade year. It is rewarding to know that the mentoring is a positive experience that carries them through the middle school years."

In November of 2002, Inez Tenenbaum, South Carolina Superintendent of Education, presented Napier with the State Department of Education Exceptional School Volunteers Award on behalf of the HPP.

Student recognition is one way to motivate students. The Beacon Award, developed by the HPP team at Loris Middle School, is presented monthly during a school awards ceremony. Students nominate a peer from each grade level who displays leadership qualities, good citizenship and who serves as a positive ambassador for other students. Ninety-two percent of students at Loris Middle School indicated that they would like to receive the Beacon Award, and 69 percent said that the Beacon Award made them more aware of good citizenship.

Another motivational tool developed by the HPP team at Loris Middle School is a letter-writing campaign from business partners to students achieving educational milestones such as honor roll, spelling bee winners, Geography contest winners, etc.

According to Neil James, manager, distribution operations and Santee Cooper's lead contact for Loris Middle School, "The many comments I've received from parents about the letters underscores how important it is for students to be recognized for their

achievements. One call in particular that I will never forget came from a LMS parent who called to tell me how much the letter had meant to her son and how proud he was to receive it. She went on to say that he had recently passed away, and she had placed that letter in her son's casket."

"High Performance Partnerships is not merely a feel-good program," said Barbara Allen. "Through these partnerships, Santee Cooper employees work with school administrators, teachers and students to bring about real, systemic, measurable changes. We go beyond just working with schools on hard-core educational issues. We also know the importance of demonstrating to students the need for developing communication skills, workplace ethics and problem-solving skills. Our employees team up through the HPP to provide the helping hands, creative inputs and caring support teachers and school administrators need to do their jobs and students need for a successful and fulfilling life outside the classroom," said Allen.

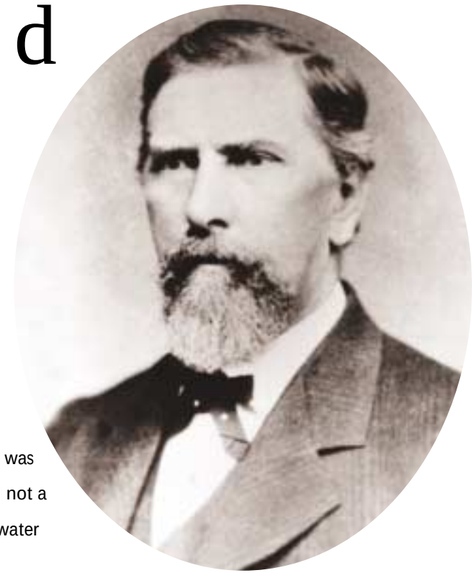
Neil James, manager of distribution operations, signs letters congratulating students for achieving educational milestones, while being assisted by Sr. Customer Services Representative Linda Pickens.

Santee Cooper President and CEO John Tiencken sees programs and efforts such as HPP as part of the state-owned utility's investment in its future. "Every effort we make to improve the educational process through corporate outreach and the caring and sharing relationships of our employees pays off in improving the quality of life for the communities we serve and for the citizens of South Carolina."

Engineering Associate Lisa Napier helps students at Berkeley Middle School understand that the choices they make now will affect them for the rest of their lives.

The Little David

Moncks Corner-Made Craft Carried Out First Successful Torpedo Boat Attack in Naval Warfare History



Just about everyone in South Carolina has heard of the H.L. Hunley, the world's first submarine to sink an enemy ship. Its place in the annals of maritime combat is assured—and deservedly so.

But there's another historic naval vessel that even serious Civil War buffs have largely overlooked or simply aren't aware of. Like the Hunley, it made naval history here in South Carolina. This vessel also greatly aided the Hunley toward its successful, yet tragic, appointment with destiny on that fateful night off the Charleston coast in February 1864.

The vessel is the David, or as it's commonly called, the "Little David." Constructed in 1863, the Little David was a semi-submersible torpedo boat and not a submarine, so it could not go under water like the Hunley.

The Little David, with a sleek dynamic shape that looked remarkably like a modern nuclear submarine, rode very low in the water and had a submerged torpedo charge on the end of a pole or spar at its bow—as did the Hunley. It was steam-powered, utilizing a discarded locomotive engine that pushed the 54-foot-long, 5-foot-wide craft through the water at a top speed of 10 knots per hour.

***Left**: This Conrad Wise Chapman painting of the Little David can be seen in The Museum of the Confederacy in Richmond, Va.*
***Above**: David Chenoweth Ebaugh was in charge of the design and construction of the David and other torpedo boats of similar type built in the Charleston area.*

How the Little David Was Born

The idea for the Little David was conceived in secret by Dr. St. Julien Ravenel, a Charleston physician and botanist, and Theodore D. Stoney, another Charlestonian.

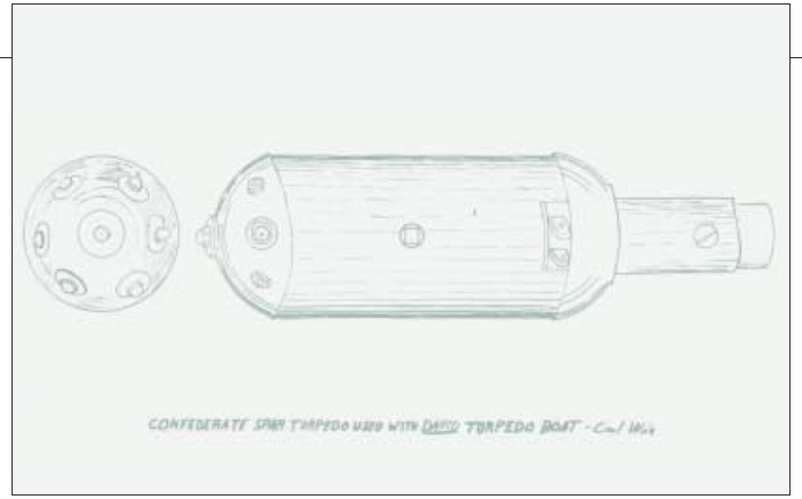
These well-to-do men wanted to do everything within their power to save a dying Confederacy. By early 1863, the Union blockade of Charleston was choking the Holy City and the region, which depended upon the import of goods from European ports. The early success of blockade runners, the "lifeline of the Confederacy," was rapidly becoming a distant memory.

Ravenel owned Stony Landing, a bluff overlooking the Cooper River near Moncks Corner. Named for the unique "stony" outcroppings of limestone or marl, Stony Landing is today the site of the Old Santee Canal Park, owned and operated by Santee Cooper.

A "David"-class torpedo boat abandoned along Charleston's waterfront row. Note the spar torpedo gear at the boat's bow (to the left) and damage to her hull side, amidships.

A replica of the Little David is located on the grounds of the Berkeley Museum, which is within the boundaries of Old Santee Canal Park in Moncks Corner. The replica will soon be refurbished and subsequently maintained by United States Submarine Veterans, Inc., a Charleston group of ex-submariners spanning from World War II until the present.

It was at this site, under a shed and under extreme secrecy, that the Little David began to take shape. It was constructed by David C. Ebaugh, a Maryland native who came to Berkeley County in the mid-1850s to seek his fortune in lumbering. During the Civil War Ebaugh managed the Ravenel & Stevens Co. Niter Works operation located at Stony Landing. Niter is a key nitrogen-rich ingredient used in the production of gunpowder, an item much in demand given the times.



This pen and ink drawing from the 1860s shows the side and front aspects of the spar torpedo warhead, which carried a 60-pound explosive charge.

Ebaugh has stated in an 1892 letter, "The David was named after me." However, Ravenel's wife claimed she named it, applying the familiar Old Testament story of "David versus Goliath" with the CSA in the role of David and the USA cast as Goliath.

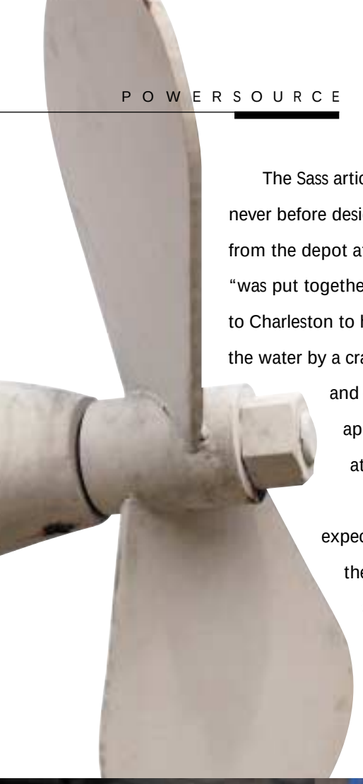
It is noteworthy that the building of the Little David required the labor of slaves. It is somewhat ironic they were constructing a vessel whose purpose was to defeat the Union's naval and army forces putting the pressure on Charleston—forces that would ultimately free them.

When the Little David's wooden hull was complete, it was something the world had never before seen. In "The Story of the Little David," published in the May 1943 issue of *Harper's* magazine, Herbert Ravenel Sass describes the craft as:

"…the slimmest, keenest thing into which a builder had ever dared fit engine and propeller. But her slimness was not her most notable feature. Her shape was none of the traditional ones, but something new and bold—a hull like a long, thin, sharp-pointed cigar, rounded above as well as beneath so that in cross-section it was a perfect circle. It was mainly due to this design that she floated so low while at the same time her long, streamlined body—exactly fore-shadowing the self-propelling torpedo of today—would offer a minimum resistance to the water."

After the boat was built at Stony Landing, what went inside the boat was installed in Charleston, at the North Eastern Railroad's shop on Line Street. How the Little David got to the city under siege is another unknown.

The spar of the Little David replica extends about 25 feet from her bow. It is missing the spar torpedo, which on the original vessel delivered an explosive, damaging punch to the USS New Ironsides.

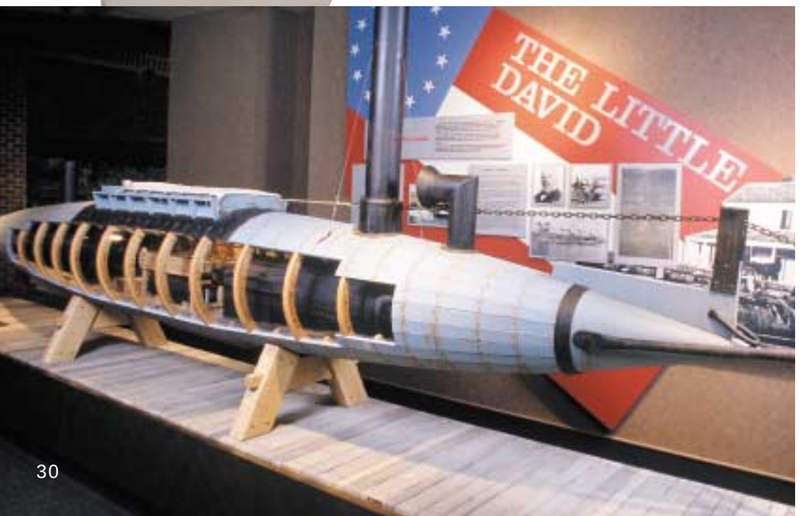


The Sass article, which credits Ravenel as the designer, "who had never before designed a ship or boat," stated it got there by rail, shipped from the depot at Moncks Corner. Ebaugh's letter said the Little David "was put together at Stony Landing, corked and launched. It was sent to Charleston to have the machinery put in. It was there hoisted out of the water by a crane on the North Eastern Railroad wharf, put on a car and carried to the railroad shop." Whatever the case, it's apparent the Little David first floated in the Cooper River at Stony Landing.

Ebaugh was paid $29,000 for his efforts. Ravenel expected nothing and got the same. The boat, now under the command of the Confederate States Navy and moored at the Atlantic Wharf near Broad Street, needed a crew.

W.T. Glassell, a Virginian, became the Little David's skipper. Three other volunteer seamen participated in the attack, which occurred on the night of Oct. 5, 1863. They were James Tomb, an engineer; James Sullivan, a fireman and pilot Walker Cannon.

An exhibit and a cutaway model of the Little David are located in the Interpretive Center at the Old Santee Canal Park.



Battle of David and Goliath

The object of their attack, the USS New Ironsides, is considered by many to have been the most formidable warship in the world. An armored steamship, it featured 14 11-inch guns and one 8-inch rifle. As Sass states, "…she was the first American battleship in approximately the modern meaning of that term." There was a price on her head. The Confederates offered a $100,000 reward if she could be sunk.

Under the cover of darkness, the Little David made its move to slay its Goliath. On the moonless night of the attack, the sea was calm. The small craft steamed past Fort Sumter in search of its prey. It was nearly 10 p.m.

The four men huddled in the crowded cuddy of the stealthy craft. Moving closer and closer, they sighted their victim gently rocking in the sea. They were quickly within shouting distance of the massive warship. Glassell positioned his double-barreled shotgun

Another "David"-class torpedo boat, abandoned after Charleston's capture by federal forces, was photographed in the area of Tradd Street.

loaded with buckshot. His own account of the attack, written after the war, is as follows:

"When within about 300 yards of her a sentinel hailed us, 'Boat ahoy! Boat ahoy!' repeating the hail several times very rapidly. We were coming towards them with all speed and I made no answer, but cocked both barrels of my gun. The officer of the deck next made his appearance, and loudly demanded, 'What boat is that?' Being now within 40 yards of the ship, and plenty of headway to carry us on, I thought it about time the fight should commence, and fired my gun. The officer of the deck fell back, mortally wounded (poor fellow), and I ordered the engine stopped.

Painting of the USS New Ironsides, which was severely damaged by the sneak attack of the Little David.

"The next moment the torpedo struck the vessel and exploded. What amount of direct damage the enemy received I will not attempt to say. My little boat plunged violently, and a large body of water which had been thrown up descended upon her deck, and down the smokestack and hatchway."

Amid a hail of small-arms fire, Glassell gave the order to abandon ship. Sea-water from the explosion extinguished the fire in the boat's boiler. After about an hour in the water, a

In 1864-65, a 160-foot long enlarged version of the torpedo boat "David" was constructed at Charleston. Three times longer than the David, this steam-powered vessel was intended for use as a blockade runner, with a reported capacity of 250-300 cotton bales. The "Large David" was captured incomplete when Charleston fell to federal forces in February 1865.

passing transport schooner picked him up where the captain "made me as comfortable as possible with whiskey and blankets."

Sullivan was also picked up later and, like Glassell, made a prisoner of war. Cannon couldn't swim and stayed onboard. Tomb, who had dived into the water, swam back, and he and Cannon raised steam and remarkably, the craft, unlike the Hunley after its attack, made it back home.

The Little David did not sink the New Ironsides. However, it delivered so much damage that the battered and bruised warship was sent to drydock in Philadelphia for repairs. There, it later burned and was decommissioned.

Less than two years later, the war was over. After the conflict Ebaugh said, "I built two more boats at Stony Landing. One was intended to run the blockade. It was 163 feet long and 12 feet in diameter, made in the shape of a cigar." The other was a "flat bottom steamboat." The engines and boilers came from Scotland. The Navy captured them both after the war.

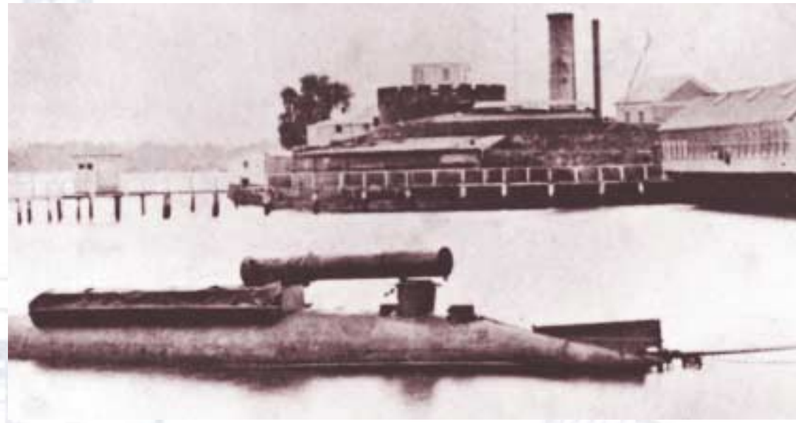
As for the Little David, it made additional attacks on Union vessels in the North Edisto and Stono rivers, but both were unsuccessful. The Navy found nine abandoned David-type boats in Charleston Harbor. Two were raised from the Cooper River. Some were built at the Confederate Shipyard on the Great Pee Dee River.

The Little David also on at least two occasions towed the Hunley on training missions prior to her successful sinking of the USS Housatonic four months later.

Rear Admiral John Dahlgren, commander of the Union's South Atlantic Blockading Squadron, wrote the following on Jan. 17, 1864:

"There is also one (boat) of another kind, which is nearly submerged and can be entirely so. It is intended to go under the bottoms of boats and there operate." The admiral was, of course, speaking of the Hunley.

War typically accelerates technology, and the episode of the Little David is no exception.



A captured "David"-class torpedo boat sits in the water at the U.S. Naval Academy in Annapolis, Md. Photo made during the late 1860s.

Little David On Display

An exhibit of the Little David is one of the major displays within the Interpretive Center of Old Santee Canal Park near Moncks Corner. It features a one-tenth scale cut-away model of the famous naval attack boat, with a window that allows viewers to see the David's fuel box loaded with coal, the boiler and the steam engine. There are also photos and paintings in the display that help tell the story of the David's heroic exploits.

In addition, a replica of the Little David is located on the grounds of the Berkeley Museum, which is within the park and adjacent to the Interpretive Center.

Ironically, both displays of the Little David are located within several hundred yards of where this historic warship was constructed. Old Santee Canal Park and the Berkeley Museum are located at Stony Landing.

Since Moncks Corner has expanded its borders over the years to include Old Santee Canal Park, the town may now include "Home of the Little David" among its attributes.

NewSource

Revised Web Site Offers Quick Access to Santee Cooper Information and Services

Looking for information or answers to questions about e-billing, customer services, energy conservation tips, educational programs, Green Power or Santee Cooper history?

Instant information about Santee Cooper and its many programs and services is available at-your-fingertips through the newly revised Internet Web site for the state-owned electric and water utility.

The new version of SanteeCooper.com features enhanced navigation, improved graphics and online applications. Key subject areas of the site are Customer Service, Your Home, Your Business, Community and Education, Environment and About Us.

Links to the pages of these subject areas are more easily made through the use of dynamic drop-down menus that offer one-click navigation. In addition, a navigational crumb trail found in the top left of each page lets users know where they have been and the page they are currently on.

Users can find specific information by simply entering keywords into the search field at the top right of each page and clicking on the arrow button. Using the advanced search engine, they will immediately be provided a listing that contains the top results of their search.

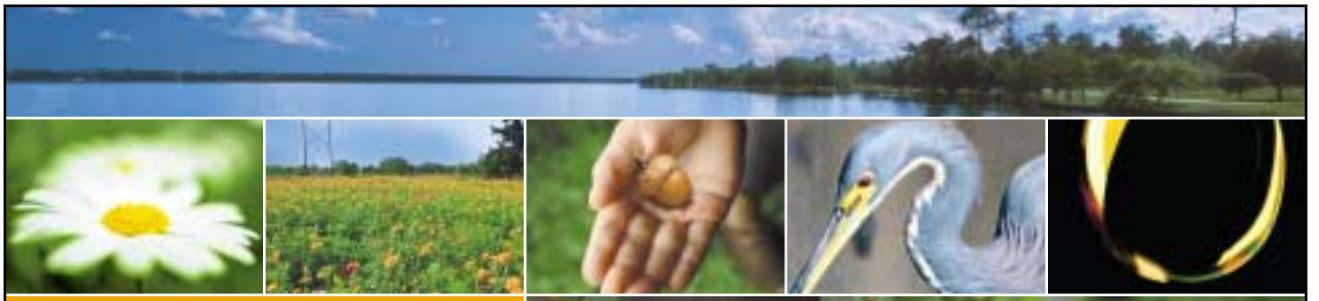
The friendly faces seen throughout the Web site are those of Santee Cooper employees or their dependents, reinforcing the corporate commitment: “Dependable Power. Dependable People.”

Visitors to the site are encouraged to send their comments to Webmaster Gary McSwain at glmcswai@santeecooper.com

Lest we forget...

A Postcard from the Past

This 1942 picture postcard showing the completed Santee Cooper Hydroelectric and Navigation Project diorama is a reminder of what the original Federal Power Commission license entailed. The display, which was used as a traveling educational exhibit, shows the Pinopolis Power Plant and Navigation Lock, the switchyard, lakes Moultrie and Marion, Pinopolis East Dam and Santee North Dam, Santee Spillway and the Diversion Canal. Details about the project are printed on the back of the post card along with a box enclosed with instructions: “PLACE ONE CENT STAMP HERE.”



"It's all about power plants and green plants ...in equal parts."

Mary Bell,
Santee Cooper Environmental Education Coordinator

The mere existence of my job is evidence that the people at Santee Cooper put as much emphasis on environmental stewardship as they do in producing electric power. For instance, Santee Cooper is the only utility in South Carolina to offer Green Power. The whole environmental story is on our special Web site below. When you visit it, feel free to explore links to all the other ways Santee Cooper works to make life better for everyone in South Carolina.

scgreener.com

Visit www.scgreener.com for more information on environmental programs.

Santee Cooper POWER
Dependable Power. Dependable People.